National Park Service

National Park Service
U.S. Department of the Interior

Mid-Atlantic Network

Inventory and Monitoring Program

Directory Structure Guidance Document

Adapted from:
Central Files Directory Structure – Southern Plains Network

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MIDN-NPS, 2008. MIDN Directory Structure, Draft, Version 1.0, Northeast Region – National Park Service

Change History

Original Version #	Date of Revision	Revised By	Changes	Justification	New Version #

1 Purpose

The Mid-Atlantic Network developed these guidelines for maintaining organization and efficiency when storing digital files. This document describes the functional and structural components for the directory. Functional requirements define the organizational rules that guide the management of these electronic files managed on shared drives, while structural requirements explicitly define the folder organization and naming conventions.

2 Functional Requirements

Functional requirements define a thought process. Unlike structural rules, they do not define the directory structure, but rather provide a framework for allowing the structure to evolve through time. Any changes to the directory structure should conform to the following rules:

- Provides a consistent and logically organized structure that complements short and long term park and network activities.
- Is hierarchical and minimizes confusion about where information is located. Ideally the organization should be logical enough that one could navigate through the entire structure without requiring a map.
- Allows for efficient, comprehensive, and regular backups of electronic files.
- Accommodates various security settings for different types of users.
- Separates in-progress/draft/unofficial files from final/official information.
- Does not arbitrarily divide information in a way that increases the possibility of corruption or loss (e.g. metadata should not be separated from the data).
- Is broad enough to clearly accommodate all types of electronic files created or retrieved by park and network staff.
- Be simple without sacrificing functionality
- Minimizes the number of sub-folder levels. Ideally there should never be more than 8-10 subfolders within any primary directory

Additionally, the following general rules apply to the creation of new folders:

- Subfolders named “old”, “temp”, “interim”, or “current” indicate drafts of documents that are being temporarily stored. These folders are to be removed following final publication and archiving.
- Folder names will never have spaces or special characters (e.g., $%\&*).
- Folder names will be UPPERCASE if they are: (i) NPS codes (e.g., MIDN, WASO, FRSP), or (ii) labeled SENSITIVE. Two uppercase words are separated by an underscore (e.g. FIRST_SECOND).
- All other folders not meeting the criteria of being UPPERCASE will follow the Proper Case naming convention (e.g., FirstSecondThird) or will be separated by underscores (eg., First_Second_Third)
- No modification to the top level or root of the directory structure will occur without approval from the network data manager.

3 Structural Requirements

All electronic files connected with the MIDN Inventory and Monitoring Program are stored on a 600GB server named Bob. Bob houses two shared drives: Z (Bob) and Y (MIDN_share). The Y drive is primarily used as a dumping ground for file sharing. The Z drive is the primary network drive and contains all of the information related to administration, monitoring, projects, and tools. Only MIDN personnel have access to these drives. Structural requirements in this document are given for the Z drive.

3.1 Specifications of Root Folders

This section provides a brief description for the eight root folders located on the Z drive.

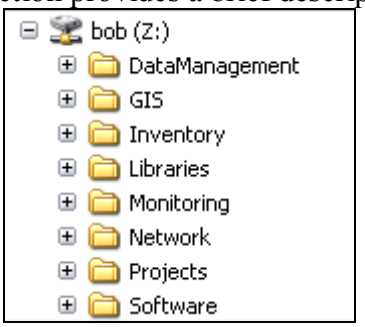

Figure 1. Root folders on the MIDN server

3.1.1 DataManagement

Contains the tools and documents used for data management within the network.

- MIDN_DMP – Contains the current data management plan
- National_DMP – Contains the national data management plan
- SOPs – Contains relevant data management SOPs

Network staff will have read-write access to this folder.

3.1.2 GIS

Contains an extensive library of spatial data for each of the network parks as well as adjacent parks that the network works with. All network staff has read-only access to this folder except the Data Manager who has read-write access. The GIS folder is broken down into 9 primary subfolder types:

- Park - Park folders are labeled by their capitalized 4 letter park code (e.g. APCO, BOWA, GEWA etc.). Each park folder has all or some of the following subfolders: *biological, boundary, cultural, drg, elevation, geology, imagery, infrastructure, vegetation, water*. Additionally, these folders contain park specific maps.
- Esri – Contains sample data provided by ESRI
- Global - Contains global spatial data
- National – Contains national-level spatial data
- State – State folders are labeled by state name (e.g. Virginia, Pennsylvania) and contains state-level spatial data
- kml – contains kml code files for google applications
- Maps – contains network maps

- Remote Sensing – contains a list of satellite imagery of network parks located at the Denver archive
- Tools – Contains tools and codes

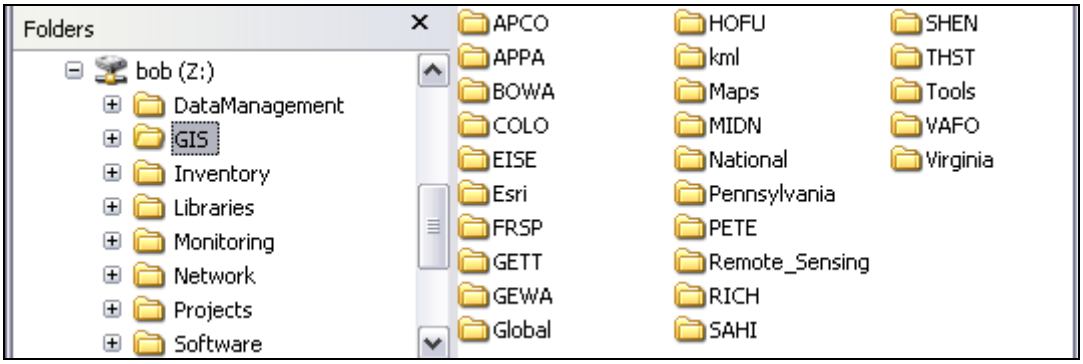

Figure 2. GIS subfolders

3.1.3 Inventory

Contains files relating to each of the Networks inventories. It contains an archive folder as well as an individual directory for each active project. Each project folder is labeled by the type of inventory followed by the cooperator then by the abbreviation for the park(s) or state the inventory took place in (e.g. BatInventory_Hart_PA). When an inventory is completed and the final products have been moved to the libraries, the folder will move into the archived folder of this directory. All network staff will have read-write capabilities.

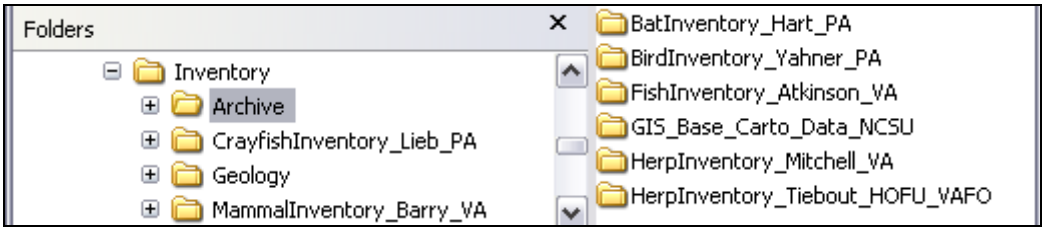

Figure 3. Inventory subfolders

3.1.4 Libraries

Currently contains the network's four libraries:

- Artwork - contains original artwork (e.g. drawings)
- Maps – contains maps created for reports or publications
- Photos – contains network photos
- Publications – contains publications produced or used by the network

The last two subfolders are the most extensive. The libraries folder is for final documents only. Network staff has read-write capabilities.

3.1.5 Monitoring

Houses folders for each of the Network's monitoring projects. These are all long-term projects and include a Master folder for materials that define the protocol, a working

folder by year, and an archive folder for previous years (see section 3.3 for further details on Monitoring structural organization). Network staff members have read-write capabilities.

3.1.6 Network

Contains files related to the network but not a specific short or long-term project. Network staff will have read-write access to this folder. Subfolders include:

- Administrative – contains budget, equipment and personnel documents
- BoardOfDirectors – contains BOD meeting presentations and documents
- Communications – contains draft MIDN newsletters and printing templates
- Meetings – contains presentations for meetings or conferences
- Plans – contains AARWP, Network Charter, and Phase III network plans
- ScienceAdvisoryCommittee – contains Science Advisory Committee presentations

*Note: Only background and template information for newsletters and plans will be available in these folders. The final versions are found in the Libraries folder under publications.

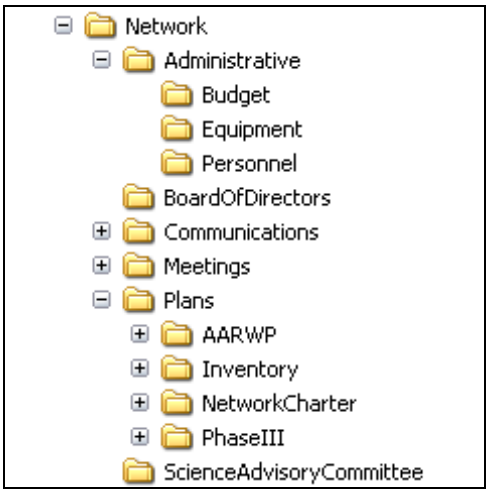

Figure 4. Network subfolders

3.1.7 Projects

Contains files relating to projects the network participates in and/or funds that are not an inventory or monitoring project. These include watershed condition assessments, vegetation maps, and fire fuel projects. This directory includes an archived folder as well as an individual directory for each active project. When a project is completed and the final products have been moved to the libraries, the folder will move into the archived folder of this directory. All network staff members have read-write access to this folder.

3.1.8 Software

Contains copies of software and drivers the network uses and relevant key code information. It is important to keep copies of old software for reading archived data.

Network staff members have read-only access to this folder. The Data Manager will have read-write access.

3.2 Standard Monitoring Projects Folder Organization

Unlike inventory and other network projects, monitoring projects are all long-term and therefore require standardization across years. To maintain consistency, all MIDN monitoring projects have a Master folder, a yearly folder, and an Archive folder.

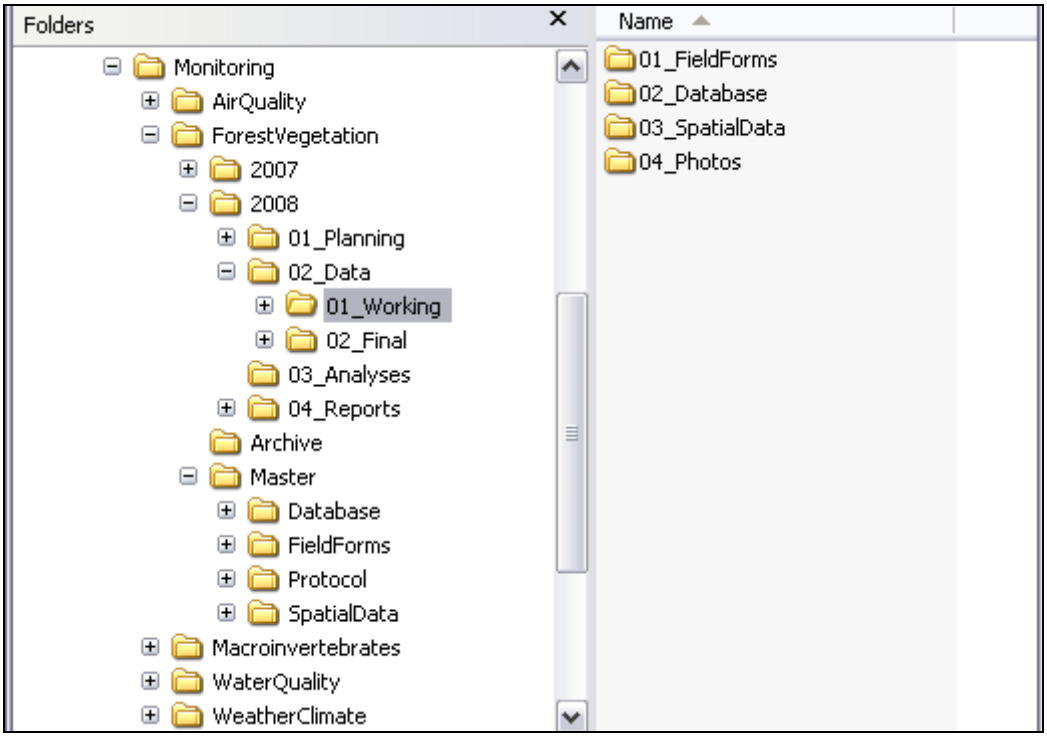

Figure 5. Monitoring Subfolders

3.2.1 Master

Contains all data and documentation associated with the protocol separated into the following subfolders:

- Database – Contains the master database for the protocol
- Fieldforms – Contains fieldform templates
- Protocol – Contains monitoring project protocols
- SpatialData – Contains master spatial data files

3.2.2 Yearly (e.g. 2007, 2008)

Contains all data and documentation for the current year:

- Planning – Contains all administrative documents including agreements, invoices, correspondence, permits, proposals, scopes of work, and meeting-related documents.
- Data – Contains a working and final subfolder to house all data for the current year. Each of these subfolders contains the following:

    - *Fieldforms* – Contains digital copies of field forms
    - *Database* – Contains the working (or yearly final) database
    - *SpatialData* – Contains raw GPS and converted GIS spatial data
    - *Photos* – Contains any photos associated with fieldwork
- Analyses – Contains analytical tools (e.g., R code, SAS code) associated with analyzing and reporting the data
- Reports – Contains the annual report for the current year

3.2.3 Archive

Once the data for the year has undergone all QA/QC procedures and is finalized it is then moved to the Archive folder.

At the end of the year or when all QA/QC, data quality review procedures, and documentation and certification have been completed, final data products for the year are merged with Master repositories, reports are moved to the library, and the yearly folder is moved to the Archive.